

East Asia and Pacific Environmental Initiative (EAPEI)

Program Summary September 1999

I. BACKGROUND

The East Asia and Pacific Environmental Initiative (EAPEI) was established to continue US Government assistance for fire and haze preparedness and prevention and to establish broader long-term efforts focused on other key regional environmental problems in the East Asia and Pacific (EAP) Region. The EAPEI follows the Southeast Asia Environmental Initiative (SEA-EI) Program, which was a one-year program funded in US Fiscal year 1998 (FY98). The SEA-EI was developed to address the repeated fire and smoke episodes through collaborative work with nations and other donors in the region. This involved a three-pronged strategy:

- Better forest management techniques and policies;
- Improved fire prevention and fighting; and,
- Improved climate-impact forecasting and environmental monitoring.

In December 1998, the US government Inter-Agency Working Group (IWG) that had directed the SEA-EI, was asked to prepare proposals for the EAPEI. Guidance for the proposals was provided by the “East Asia and Pacific Environmental Initiative (EAPEI) Program Summary and Funding Recommendations” document (December 1998), by a list of criteria to be used for activity selection, and by a model format to be used for proposals. A total of 46 proposals were submitted and reviewed by the IWG. Of these, 21 were approved for FY99 funding in April 1999 by the Assistant Secretary of State for East Asia and Pacific Affairs. Following Congressional Notification and release of funding for the program in June 1999, USAID has worked with the organizations responsible for each activity to define planned outputs and results, to develop implementation plans and detailed budgets, and to commit funds.

The EAPEI program is structured to achieve results under three broad goal areas:

- ◆ Improved Forestry and Land Use Management
- ◆ Improved Coastal Resources Management
- ◆ Improved Climate Change Response

This document presents the objectives and approved activities under each goal area. It describes the issues being addressed, the approved activities and their expected results, and the implementation mechanism being used.

II. THE EAPEI PROGRAM

A. GOAL A: IMPROVED FORESTRY AND LAND USE MANAGEMENT

Goal A of the EAPEI incorporates and continues the activities of the SEA-EI focused on (1) improved fire management and prevention, and (2) better forest management techniques and policies. It also adds a third objective, (3) improved forest biodiversity conservation.

Objective A.1. Improved Fire Management and Prevention

Issues being Addressed:

As shown by the recent experiences in Asia and elsewhere in 1997 and 1998, successful efforts to control large fires require first a well-planned, coordinated, and executed response mechanism, and second, effective national and local institutional implementation capacity. As a result of the 1997/98 fire and haze crisis, there appears to be a true realization by affected countries that an appropriate coordinated response mechanism is key for effectively responding to fires. Second, countries are beginning to take action to develop these mechanisms. This is evidenced by the work of the ASEAN Regional Haze Task Force, the work of the regional technical assistance (RETA) provided to the ASEAN Secretariat by the Asian Development Bank, and the progress in developing sub-regional fire-fighting arrangements. ASEAN regional and national plans have been developed and related work is proceeding in related areas such as training in fire management, assessing resource needs, and suggesting policy options.

Coal seam and peat fires ignited by forest fires and land clearing activities pose a significant threat to human health and safety, infrastructure, biological resources, and global climate. If identified and addressed early, these fires can be suppressed at relatively low cost. When allowed to develop, they become far more time consuming and costly to suppress. Coal fires add to carbon dioxide levels and can reignite forest fires, adding to resource destruction and degradation. During the extended dry period of 1997/98, large areas of peat were burned in Indonesia affecting valuable swamp forests and threatening local communities and infrastructure. Malaysia, Thailand and the Philippines also experienced problems with these types of fires.

Approved Activities and Expected Results

The EAPEI is supporting two activities under this objective.

◆ **(1) Regional Fire Coordination**

In 1998 under the Southeast Asia Environmental Initiative, the USDA Forest Service in conjunction with ASEAN and the ADB Regional Technical Assistance (RETA) coordinated a fire/disaster response program. The geographic areas covered by this activity focused on Indonesia with implications for Malaysia, Singapore, the Philippines, and other ASEAN countries. Through the assistance of the Forest Service and the actions of the ASEAN countries and RETA project, follow-on assistance and activities were identified for EAPEI support. They include:

- Assigning a Forest Service fire management specialist in Jakarta to work in association with the ASEAN Secretariat team to provide technical assistance and coordinate other Forest Service fire activities;
- Developing and implementing a Sub-Regional Fire Fighting Arrangement Fire Suppression Mobilization Plan for two provinces in Sumatra with an emphasis on capacity building;
- Providing technical assistance in the development of a Sub-Regional Fire Fighting Arrangement Fire Suppression Mobilization Plan for two provinces;
- Providing technical assistance and support to fully implement the mobilization plan (specific activities to be further defined with the development of the mobilization plan); and,
- Training three Indonesian Fire Fighters on US Forest Service Fire Crews. This training will occur until May of 2000, as participants need six months language preparation.

The expected results of this activity are:

- Development of a coordinated fire disaster response system within the framework of the ASEAN Regional Haze Action Plan, and
- Strengthened capacity fire disaster team members for developing mobilization plans.

This activity is building on the assistance provided in 1998 with SEA-EI funding. Initially the international fire specialists took a lead role describing the format and content of a mobilization plan, identifying important entities to visit, and formulating interview questions. As the teams progressed, Indonesian team members took an increasingly active role in the plan development and ended up writing the entire prototype plan with minimal assistance. The Indonesian team members in both Riau and South Sumatra initiated an environmental NGO and student group seminar to introduce the plan and forge collaborative relationships for fire suppression activities. As the team met with various agencies, it became apparent that these agencies had not previously met together to discuss fire suppression issues and were unaware of resources that each could offer. The meetings provided a forum for dialogue around fire management issues and a better understanding of the role each might play in mobilizing to fight fire. Many previously unrecognized resources were identified as available and willing to become involved in fire suppression efforts. In some of these meetings, informal agreements were made for future collaborative training and sharing of information.

♦ (2) Coal Seam and Peat Fire Suppression

In 1998 under the Southeast Asia Environmental Initiative, funding was provided to the Department of Interior, Office of Surface Mining (OSM) for technical assistance to address peat and coal seam fires. This assistance is being continued under EAPEI to reduce greenhouse gas emissions from on-going coal seam and peat fires, and improve the region's long-term institutional capacity to locate, develop strategies for suppression, and extinguish coal seam and peat fires. The activity includes:

- Policy assistance to assign organizational responsibility for peat and coal fire suppression;
- Development of an interagency mechanism for priority setting;
- Identification of budget sources within Indonesia to provide a revenue stream to sustain coal and peat fire suppression;
- Classroom and field training in fire site characterization, selection of abatement alternatives, development of construction designs, cost estimates, bid specifications, plans and drawings, contract management and field inspection of fire suppression contracts; and
- Demonstration projects on selected fires to illustrate to contain and extinguish fires.

This proposal builds on the experience gained in the first phase of the project and will expand it to those areas of Indonesia which have the most severe problems with coal seam fires and can serve as a model and source of support for other countries in the region. The results will be:

- Improved national and local capacity for identifying, containing, and extinguishing coal seam fires;
- Improved public awareness through a community-based fire reporting system and a comprehensive inventory of coal fires;
- Recommendations for national and local policy reforms and interagency coordination mechanisms to expand the model program to other areas;
- Budget sources within the Indonesia Ministry of Mining and Energy to provide a revenue stream to sustain coal and peat fire suppression.

This activity is managed by OSM's resident project director in Jakarta, who works closely with officials in the Indonesian Ministry of Mines and Energy (MME) officials. OSM is providing technical assistance to MME and the Malaysian Fire and Rescue Department to build institutional capacity to control coal outcrop and peat fires. The project director is also assisting MME in establishing policy and regulatory changes that will provide long-term sustainable funding for continuing the coal fire suppression effort in Indonesia and that can serve as a model for other countries in the region. Local petroleum companies have expressed an interest in providing logistical and staffing support to maintain the suppression capability and these sources of material and expertise will be incorporated on a regional basis.

Implementation Mechanisms

USAID has used two Interagency Agreements (IAA) to implement this component of the EAP-EI. One amends an existing IAA with the USDA Forest Service to fund the regional fire coordination activity, and the second is with the Department of Interior, Office of Surface Mining, for building Indonesian and regional capacity to extinguish coal seam and peat fires.

EAP-EI funds for FY99 have been added to both these agreements and implementation is progressing in line with the work plans for the activities.

Objective A.2. Improved Forest Management Techniques and Policies

Issues being Addressed:

From analysis of the 1997/98 fires, a general consensus has emerged that poor land and forest management techniques and policies were key contributing factors. Recommending and implementing alternative practices and policies and creating the national and local capacities to do this is priority if the future incidence and severity of fire disasters is to be reduced.

Under the SEA-EI program three activities were supported. These were: (1) assessment of the sources and underlying causes of the fires through a comprehensive study led by the Center for International Forestry (CIFOR) with the US Forest Service and national governments, others donors, and non-government organizations; (2) demonstration of reduced-impact harvesting technologies in Indonesia led by the Tropical Forest Foundation with the US Forest Service and a collaborative network of the Indonesian Ministry of forestry, Association of Indonesia Concession Holders, Center for International forestry and Asia/Pacific Forest Commission; and (3) development of alternatives to destructive slash and burn agricultural practices led by the Southeast Regional Program of the International Center for Research on Agro-Forestry (ICRAF) with numerous local governments and NGOs in Indonesia and the Philippines. Implementation for these activities is ongoing and progress and results will be reported along with that of the EAP-EI activities.

Approved Activities and Expected Results

The EAP-EI is supporting one new activity under this objective.

◆ (3) Reduced Impact Harvesting (RIH)

Globally, there is great concern that the world's forests are quickly being deforested, causing significant environmental damage. Some countries are addressing this problem by creating large protected areas and parks. The challenge in taking these actions is to accommodate and protect the major elements of forests in protected areas and parks, yet still to meet the need for timber and other forest resources. Many proponents advocating conservation of forests now realize that protected areas and parks alone will not be enough to sustain forests for future generations to enjoy and use. Consequently, reduced impact harvesting (RIH) techniques are being considered and employed to help maintain and even enhance the chances of conserving the diverse values of forests outside protected areas and parks. RIH techniques have been used for some time, especially in developed countries, but are relatively new in developing countries, especially in the tropics on a broad scale. Thus there is a significant need to better understand the implications and effectiveness of reduced impact harvesting and to develop local capacity to implement RIH techniques correctly in these countries.

Due to the relatively recent introduction of RIH technologies in developing countries on a broad scale, management support and local ability to implement are lacking. To help to mitigate this deficiency the EAP-EI will support:

- Capacity building through a study tour, information gathering and dissemination, and training, and
- Studies focusing on the environmental benefits of RIH from both an ecological and a financial perspective at an operational level.

The USDA Forest Service in partnership with the Asia/Pacific Forestry Commission, FAO, CIFOR, Virginia Technology University, Harvard University, Japan International Forestry Promotion and Cooperation Center, and the Tropical Forest Foundation have joined in an effort to disseminate the benefits arising from reduced impact harvesting (RIH). In addition, technical training will be provided to aid in instituting its use in the current forestry practices. The results will be:

- key policy and decision makers better informed of the benefits of RIH to the forest environment;
- Forestry Personnel provided technical training on RIH techniques; and
- Improved scientifically based information on the value of RIH.

Implementation Mechanism

This activity is being funded through an Interagency Agreement that USAID has with the USDA Forest Service to encourage new activities in forestry policies and regulations. The area of focus is regional in scope and the agreement includes a number of partners to promote reduced impact harvesting in order to reduce the negative environmental impacts associated with logging. EAPEI funds for FY98 have been committed for this activity and USDA Forest Service implementation is underway.

Objective A.3. Forest Biodiversity Conservation

Issues being Addressed:

Biodiversity conservation in East Asia was adversely impacted in 1997/98 first by devastating fires in Indonesia and secondly by the financial crisis that hit the entire region. This resulted in enormous cuts in the national park budgets and rising encroachment pressures that have placed Indonesia's national park system (and its biological treasures) at grave risk. The need to generate foreign exchange has created increased pressures to convert natural forests to timber production, which has been based on unsustainable logging practices and unsustainable harvest levels.

On the positive side, the economic crisis has helped stimulate genuine interest in and momentum toward Debt-for-Nature Swap (DFNS) initiatives – both for sovereign and private sector-held debt. DFNS is a way of converting external debt obligations (Indonesia has a huge external debt burden of \$138 billion) into increased support for conservation of natural resources. Furthermore, the political crisis has stimulated an active debate on shifting from the old paradigm of centralized decision-making on protected areas to models based on decentralized and broader stakeholder decision making and management. Decisions made in the near future could well determine the course of Indonesia's protected area system for decades to come. Given these extraordinary conditions, funds generated through DFNS could play a major role in promoting more effective natural resources management in Indonesia.

A second issue is the dramatic increase in wildlife trade in Indochina since peace has come to the region. The recent hard times associated with the economic crisis in Asia have exasperated this problem and further increased the sale of valuable endangered species to well established markets in China, Japan, Korea, and the United States.

The Peoples Democratic Republic of Lao (PDR) is found at the center of this market. Lao still holds important populations of a large number of endangered species, several of which have only recently been described to science. Lao PDR is one of the least developed countries in the world having very few

economic resources to allocate to controlling this growing trade and it is widely agreed that Wildlife Trade is the greatest threat to the wildlife of the region. Wildlife Trade is the largest threat to species loss in Lao PDR and other parts of Indochina in the short to medium term. Lao does not have the resources to improve its existing legislation and train and improve enforcement capabilities at its border crossings with Vietnam, Thailand, Cambodia, and China.

Approved Activities and Expected Results

The EAPEI is supporting two activities under this objective.

◆ (4) Improved Forest Conservation Management

Capitalizing on the unique conditions presented by the Indonesian economic crisis, three US-based international conservation organizations (The Nature Conservancy--TNC, Conservation International--CI, and the World Wildlife Fund—WWF) are collaborating to complete debt-for-nature swap (DFNS) transactions that will generate significant local currency funds for long-term conservation programs, and to catalyze a new conservation agenda in Indonesia, based on expanded civil society participation, decentralization, and more effective management and financing regimes. The recently completed comprehensive study by this coalition concluded that DFNS is a feasible option for conservation financing in Indonesia. The DFNS partnership is now moving forward with a joint, multi-year program to catalyze DFNS transactions in Indonesia. This will entail close collaboration on many fronts (e.g., private-to-private debt swaps, sovereign debt swaps, the Tropical Forestry Conservation Act, bilateral and multilateral agency support, etc.), with one major objective being to leverage US leadership in this area. Given the complexity of Indonesia's current situation, the DFNS partnership has already invested considerable resources in order to lay the necessary groundwork of understanding and support for how a debt swap program might work in Indonesia. The joint activities of the DFNS partnership are:

- Building support among key Indonesian constituencies and developing a coordinated advocacy strategy for DFNS;
- Collaborating on debt issues with target donors and creditors and the Jakarta Initiative;
- Building GOI capacity by providing legal and financial technical advice and assisting in identifying sources of revenue that might fund a swap;
- Providing technical assistance in designing bilateral debt swap operations;
- Assessing funding mechanisms and providing seed funding for a first pilot swap; and,
- Exploring and pursuing DFN opportunities in other countries.

The expected results from this activity are:

- Execution of the first DFNS transaction in Indonesia;
- Increased funding for biodiversity conservation; and,
- Greater cooperation between the Government of Indonesia and NGOs for improved management of parks and protected areas.

◆ (5) Southeast Asia Wildlife Conservation

As part of the World Wildlife Organization's (WWF) overall goal of conserving the full extent of biodiversity of the forests of the lower Mekong region, this activity specifically addresses the illegal trade in wildlife and non-timber forest products at the political, administrative, legal, and technical levels. The funds being provided by EAPEI will be complemented by additional funding through WWF's ECOS Nature Project. The Lower Mekong Forests Eco-Region is one of the focal eco-regions for the Project.

The Southeast Asia Wildlife Conservation activity supports:

- Disseminating information on CITES within all levels of Lao Government;
- Producing a clear guide for the Lao government to follow in order to accede to CITES;

- Developing appropriate regulations for Wildlife and Wildlife Trade in cooperation with the Lao Government;
- Improving training capacity at the national level for Wildlife Trade enforcement; and
- Improving law-enforcement capacity at eight border crossings between Lao, Vietnam, and Thailand.

The expected results are:

- Greater interest by the government of Lao PDR in regard to its ascension to CITES;
- Improved Lao PDR regulations for controlling wildlife trade; and,
- Less illegal wildlife trade at eight border crossings between Lao PDR, Vietnam, and Thailand.

Implementation Mechanisms

The DFNS activity is being funded through a Cooperative Agreement between USAID and The Nature Conservancy. The Nature Conservancy has established an agreement with Conservation International and the World Wildlife Fund to implement this activity through an Indonesia-based NGO consortium. Implementation has started using other funding from these organizations, but is moving slowly. Greater progress is expected in the coming year after a new Indonesian government is formed in November 1999.

The Southeast Asia Wildlife Conservation activity is being funded through a Cooperative Agreement between USAID and The World Wildlife Fund (WWF). The WWF US Office will provide these funds to the WWF Indochina office, which will manage field implementation. Funds have been committed for the activity. WWF will provide implementation progress and financial reports to USAID on a semi-annual basis as stipulated by the overall Cooperative Agreement.

B. GOAL B: IMPROVED COASTAL RESOURCES MANAGEMENT

Goal B of the EAPEI is a new area that was not included under the SEA-EI. This goal area has two objectives; (1) improved marine resources management, and (2) improved marine biodiversity conservation.

Objective B.1. Improved Marine Resources Management

Activities falling under the “Marine Resources Management” grouping consist of new activities in capacity building, technical support, and destructive fishing reform.

Issues being Addressed:

The documented severe impacts of destructive fishing and over-exploitation of the reef resources in the Indo-Pacific region were compounded by unprecedented coral bleaching and resultant coral mortality around the world in 1998. Such bleaching events that are increasing in frequency and extent, may be linked to global climate change and exacerbated by direct human activities, and therefore may be expected to become a recurring problem. Combined, these factors create reefs analogous to the massive fires crisis of the prior year and require development of a serious and coordinated USG response. This response must be based on an understanding of the causes and must support the region as it seeks to understand the long-term consequences of such events and to develop sustainable strategies to address them.

In the Pacific Island region, marine resources management cannot be separated from the larger issues of social and economic development. The people of the Pacific rely heavily on the living natural resources of their small island countries, including the surrounding ocean, for their subsistence and for their economic, social, and cultural well-being. But the natural resources of the land and sea upon which these countries

depend so much are sensitive to ecological disturbances and are easily degraded. Unless actions are taken soon, especially by those whose livelihood are heavily dependent on these resources, the future of Pacific Island communities will be significantly compromised.

In East Asia, industrialization and urbanization have greatly increased land-based pollution threatening the vitality and productivity of coral reefs and marine fisheries. The first ever APEC Oceans Conference, which was held in Honolulu on October 12-16, 1998, noted this issue and endorsed the idea of a “Partnership Market Meeting” (PMM) to implement the Global Program of Action for the Protection of the Marine Environment from Land-based Activities (GPA). The PMM is an innovative approach to development assistance that seeks to engage the private sector in infrastructure and development planning as full partners with governments, donors, financial institutions, and other stakeholders. The Philippines announced at the APEC Oceans Conference that they would host the first of these meetings and to serve as a model for future meetings. The Philippines has requested US assistance to organize the meetings and to develop their national GPA implementation strategy.

Finally, throughout the East Asia and the Pacific Region the use of destructive fishing practices is spreading. The stunning of aquarium fish with cyanide was first reported in the Philippines in the 1960s. The practice facilitated capture of ornamental aquarium fish destined for pet shops and aquariums of Europe and North America. More recently, the almost insatiable consumer demand for live reef fish food, especially in the restaurant trade in Hong Kong and other major Asian cities, has vastly increased the incidence of the practice. Since then, more than a million kilograms of sodium cyanide has been used on coral reefs in the country and the practice has now spread to Indonesia. In 1998, the Department of State’s Bureau of Oceans and International Environmental and Scientific Affairs reported that cyanide fishing is especially widespread in Indonesia and has also been confirmed in Taiwan, Papua New Guinea, Thailand, Malaysia, Vietnam, and the Maldives. More than 80 percent of Southeast Asia’s reefs are now at medium to high risk of destruction, in large part from the consequences of the live reef fish trade. The live reef fish trade is driven largely by the increasing demand for live reef fish in the restaurants of Greater China and the diminishing supply of target fish in Southeast Asian waters due to over exploitation and habitat degradation. The demand for aquarium fish from the US, Europe, and Japan is another key factor driving this expansion.

Approved Activities and Expected Results

The EAPF is supporting six activities under this objective.

◆ **(6) Understanding Bleaching and Other Threats to Coral Reefs**

This activity is providing technical support for the US Coral Reef Task Force to address a range of coral reef management issues, including coral bleaching, over-fishing, and destructive fishing. The activity involves seed funding to:

- Assess socio-economic impacts associated with coral bleaching;
- Enhance regional programs to combat destructive fishing and unsustainable practices associated with trade in reef fish;
- Augment regional capacity-building.

Through the US Coral Reef Task Force, State and USAID are now leading the development of a marine resources management strategy for the EAP region. The US Coral Reef Task Force can be a key tool in moving regional action plans from words to action and in building understanding of the potential consequences of and responses to ever-increasing and more severe bleaching impacts. This activity will leverage USG agency, international organization, and other country funding and participation in key elements of this implementation. Our experience as founders of the highly successful International Coral

Reef Initiative indicates that such funding will attract further investment and will lead to significant on-the-ground action.

The expected results are:

- Improved understanding of coral bleaching and other marine resource management issues in the region;
- Increased USG and other donor funding to address major environmental impacts to coral reefs, including destructive fishing, over fishing, and in particular the emerging impacts of coral bleaching.

◆ (7) **South Pacific Coral Reef Conservation**

This activity will provide the South Pacific Regional Environment Program (SPREP) funds to augment its five-year Coral Reef Action Plan, with special focus on:

- Marine Protected Areas as a management tool for sustainable fisheries;
- Harvest and foreign trade in corals in Fiji; and
- Training of trainers for coral reef monitoring as part of Global Coral Reef Monitoring Network.

The activity will work primarily through small grants to communities for local projects within the focus areas specified in the EAPEI funding agreement. The main aim of the scheme is to make resources immediately available to communities, governments, and NGOs for the conservation of important coral areas including those that are under threat. The expected results are:

- Projects involving identification, protection, and management of coral reefs and associated ecosystems will be developed in target communities.
- Increased community awareness of actions for improved coral reef management

◆ (8) **Partnership Market Meeting (PMM)**

Funds will be used to support a Partnership Marketing Meeting (PMM) in the Philippines to implement the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities. This innovative approach seeks to engage the private sector in infrastructure and development planning as full partners with governments, donors, financial institutions, and other stakeholders. NOAA with other USG agencies will assist the Philippine Government to develop a national GPA implementation strategy that will be the basis for discussion at the PMM. The goal is to develop the strategy with form and content that attracts interest from the private sector to assist with implementation.

The activity will provide:

- Technical assistance from NOAA to the Philippines in the development of their national GPA implementation strategy.
- Support to the World Conservation Union (IUCN) to work with the Philippines and the USG to design and implement the PMM, as well as serve as the coordinator and liaison for private sector and non-governmental input and sponsorship of the PMM.

This strategy will be the basis for discussion at the PMM. It is especially important for this strategy to be accessible and in a format that attracts private sector interest. It is expected that technical assistance will be directed toward helping the Philippines conduct local and regional stakeholder meetings to define the priorities, coordinate interagency review, and develop a document that both describes the national strategy and defines specific project priorities for consideration by participants at the PMM. The IUCN will set up a secretariat for the PMM at their Washington offices to perform these functions. This will include travel to work directly with private sector sponsors and the Philippines.

The expected results from this activity are:

- A test of the partnership market meeting concept of engaging the private sector and other stakeholders in protection of the marine environment;
- Production of the Philippines National Strategy for Implementing the Global Program of Action for the Protection of the Marine Environment from Land Based Activities; and
- Commitment by participants (in groups or individually) to implement specific projects from the Philippines national GPA implementation strategy.

◆ **(9) Destructive Fishing Reform: Southeast Asia**

Sustainable practices for the growing live reef fish trade in SE Asia and South Pacific will be the target of continued efforts by International Marinelife Alliance (IMA) and its partner, the World Resources Institute (WRI). Live reef fish are currently exported to both Hong Kong (as food fish) and to Europe and the US (for aquarium trade). Significant environmental and socioeconomic impacts are associated with the practice. EAP-EI funds will be used to expand the Indo-Pacific Destructive Fishing Reform Initiative (DFRI) by implementing components of the Initiative in Vietnam, Thailand, Sabah (Malaysia), and Hong Kong. The activity will include:

- Assessment of the status of live reef fisheries in SE Asia; validate unconfirmed reports of cyanide use and other destructive fishing practices (Vietnam and Thailand);
- Training for Sabah Fisheries Department staff on monitoring, inspection, and sampling of live fish exports;
- Institutional and policy assessment relevant to live fish trade in target countries; determine needed policy and legal reforms;
- Work with Hong Kong buyers to establish market standards and practices to develop incentives for certifiably eco-friendly fish capture;
- Work with target Southeast Asian governments to develop Action Plans to combat destructive fishing and local capacity; and
- Document and publish an analysis for the three-year DFRI.

Unlike other forms of reef-destructive fishing (i.e., blast or dynamite fishing), which are driven primarily by the subsistence needs of small-scale fishers, cyanide fishing is driven entirely by the lucrative and unregulated international trade in marine aquarium fishes and live reef food fishes. A particularly troublesome aspect of cyanide fishing is that operators typically target the most pristine and isolated reefs that they can find, reefs that are not subject to other pressures such as coastal development and onshore pollution and erosion. It is “the last of the best” that is under threat from this out-of-control industry.

The expected results from this activity are:

- Validation of unconfirmed reports of the use of cyanide and other destructive fishing practices in Vietnam and Thailand and if present, determine the extent and use of cyanide or other destructive fishing practices for the capture/harvesting of live aquarium and live reef food fish;
- Expansion of the on-going relationship with the Fisheries Department of Sabah in conducting training’s on monitoring, inspection, and sampling (MIS) of live reef fish exports at major shipment points in Sabah and assessments of capture areas in the country;
- Determination of the extent to which policy reform, legal development, and institutional strengthening is needed relevant to the live reef fish trade and coral reef protection
- Improved market standards and practices in Hong Kong to discourage destructive live reef fishing practices and provide market incentives for sustainable uses of live reef fish and other marine resources;
- Strengthened adherence to the Code of Conduct for Responsible Fisheries, in the broader context of marine resources conservation and management, to establish contacts with the government representatives of the target countries to develop Action Plans to combat

destructive fishing practices and build local capacity for coral reef conservation and sustainable live reef fisheries management; and,

- Published analysis and synthesis of all data gathered, lessons from the field experience, and recommendations arising from the project activities in high quality, readable publications and other media for wide dissemination to policy makers, fisheries and marine conservation managers, the international donor community, concerned non-government organizations, and the general public.

◆ **(10) Destructive Fishing Reform: South Pacific Islands**

In the South Pacific, the EAP-EI will provide funding to The Nature Conservancy (TNC) to advance policies, laws, management plans, awareness, and alternative livelihood programs at provincial, national, and regional levels to address destructive fishing practices. Alternatives to the live reef fish trade will also be explored by exploring market creation for maricultured live fish. More specifically, activities will include:

- Promotion of key policy reforms at national and provincial levels to re-establish traditional marine tenure systems;
- Production and use of public outreach and education materials;
- Assessment and recommendations for legal reform to close loopholes that allow destructive fishing practices to presently continue;
- Assistance to national governments in PNG, Solomon Islands, and other target South Pacific countries, to develop and implement live reef fish management and outreach plans; and
- Work with a network of regional experts, business partners, and international donors to promote sustainable mariculture of commercially valuable reef fish.

TNC will engage a wide range of key actors in this initiative, including intergovernmental and national government agencies, NGOs, communities, private sector companies, and others. Slightly different approaches will be undertaken in Indonesia versus Pacific Island States. The geographic focus of this work will be in the Pacific Region. The expected results are:

- Advancement of policies, laws, management plans and awareness, and alternative livelihood programs at provincial, national and regional levels to directly address destructive fishing practices in the Asia-Pacific region; and,
- Reduction of the demand for unsustainably-caught live reef fish by creating a market for maricultured fish and sustainably-caught reef fish.

◆ **(11) Marine Aquarium Council (MAC)**

The global retail value of marine aquarium fish reached \$200M in the mid-1990s, with more than 80 percent of the trade going to the US and Europe. Key source areas for aquarium fish are the Philippines, Indonesia, and the Western Pacific Islands. Cyanide is used to facilitate the live capture of reef fish but has lethal effects on coral. The EAP-EI is providing funding through the WWF to assist capacity building and stakeholder participation for the Marine Aquarium Council, a leading NGO dedicated to instilling sustainable capture practices among aquarium fish suppliers. The activity will:

- Strengthen MAC administrative and management capacities;
- Develop and test implementation of certification guidelines to cover all aspects of collection, handling, and export of live fish; and
- Increase participation of key Indonesian stakeholders in MAC activities to broaden support for replication of certification standards and protocol to that country.

Government, marine aquarium industry, and NGO programs do exist to address the impacts of the collection and export of marine aquarium organisms, e.g. monitoring and testing for cyanide in aquarium fish, developing fishermen's cooperatives, training collectors in non-destructive practices, providing nets to

collectors. These efforts are making an important contribution, but they are not able to address the full “chain of custody,” – the global market and the consumer forces driving the demand for marine aquarium organisms. The MAC seeks to support and compliment these existing efforts and extend their effect by making them part of a global effort for market-driven sustainability.

The expected results from this activity are:

- Strengthened understanding and cooperation among diverse stakeholders of the implementation of independent certification and coral reef conservation as being pursued by MAC;
- Pilot tested specific certification standards and protocol in the Philippines; and
- Increase participation of key Indonesian stakeholders in MAC activities in the Philippines for later follow-up in Indonesia.

The MAC initiative is being implemented in a series of phases, the first of which has already been completed. EAP-EI funding is being targeted for the completion of select Phase II activities and will be greatly leveraged with other resources from other donors.

Phase I.	Multi-Stakeholder Initiative (1996-1998): Completed.
Phase II.	Formal Start-Up (1998-1999): Underway.
Phase III.	Initial Implementation (1999-2001).
Phase IV.	Financial Sustainability (2001-2003).
Phase V.	Mainstream Operations (2003-ongoing).

Implementation Mechanisms

The activities under this objective are being implemented through several USAID cooperative agreements. These are the following:

- (6) for Understanding Bleaching and Other Threats to Coral Reefs, USAID has executed an amend to its Cooperative Agreement with the Coastal Resources Center of the University of Rhode Island;
- (7) for South Pacific Coral Reef Conservation, USAID is providing funding to SPREP through a letter grant agreement;
- (8) for the Partnership Market Meeting (PMM), USAID has amended its existing IAA with NOAA to establish PMM as a new Special Activity;
- (9) for Destructive Fishing Reform in Southeast Asia, USAID is providing funds to the IMA through a Cooperative Agreement by USAID/Philippines;
- (10) for Destructive Fishing Reform in the South Pacific Islands, USAID is providing funds to The Nature Conservancy through a new Cooperative Agreement; and,
- (11) for the Marine Aquarium Council (MAC), USAID is providing funds through a Cooperative Agreement with the World Wildlife Fund - US.

Objective B.2. Improved Marine Biodiversity Conservation

For FY99 funding there are four activities under the marine biodiversity conservation objective that will support marine protected area management and training, and will promote international support for turtle conservation and improve turtle conservation monitoring.

Issues being Addressed:

Southeast Asia boasts over 30 percent of the world’s coral reefs, most of which are among the most diverse and the most threatened. People in the region extract approximately two-thirds of their animal protein from seafood. The economies of many atoll and coastal nations are based on marine resources, whose building blocks are coral reef ecosystems that provide habitat for commercial fish and shellfish species and protect coastlines. Coral reef ecosystem degradation would significantly limit food supplies to growing

populations and would devastate commercial fishing and tourist industries. Unless integrated coastal zone management is implemented in Southeast Asia, these coral reefs and their associated marine life may become irreversibly depleted within two generations. A lack of regional institutional capacity, the dearth of local non-governmental organizations devoted to coral conservation, the inability to communicate between countries, and inadequate public awareness about the importance of coral reefs to the economies of Southeast Asian nations and coastal communities are at the heart of the crisis.

Sea turtles in the region possibly face an equally bleak future. Six of the seven known species of sea turtles are endangered or threatened with extinction throughout all or part of their range. Because sea turtles migrate across a wide range, international cooperation is essential to their survival and recovery. Initial consultations have indicated that there is considerable support within the region for a regional agreement to protect and conserve these species. This support comes from national governments, NGOs, and scientific experts. At present, the principal obstacle to moving forward is the lack of funds to initiate the negotiating process. The Government of Thailand has expressed an initial interest in hosting the first session, if money is available from other sources. Secondly, international attention, through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), has been drawn to the issue of legalizing directed take of hawksbills for the international shell trade. The evaluation of any proposed harvest is compromised by the dearth of direct information on migratory movements of this species throughout the world. Understanding the impact of such trade cannot occur without understanding the effects of directed harvest on distinct foraging or nesting populations. This understanding is timely and vital relative to issues concerning trade in hawksbill expected to be considered at the 12th Conference of the Parties to the CITES scheduled for May 2000 in Nairobi, Kenya. Equally important, is information that will be valuable in implementing regional conservation strategies, such as the proposed multilateral agreement for the conservation of sea turtles in the Indian Ocean. The support of this project will help to underscore the commitment of the US to the conservation of sea turtles in the region and thereby assist us in playing an active role in any multilateral agreement negotiations.

Approved Activities and Expected Results

The EAP-EI is supporting four activities under this objective.

◆ **(12) Sulu-Sulawesi Seas Large Marine Ecosystem (SSLME)**

EAP-EI funds will be used to expand WWF's ongoing activities and to leverage other donor funds to assist with long-term conservation of the Sulu-Sulawesi Marine Ecoregion (SSME), a biologically rich marine ecoregion bordered by Malaysia, Indonesia, and the Philippines. Threats to the SSME include: unsustainable resource consumption; rapid economic growth and industrial development; destructive fishing; unsustainable aquaculture; increasing pollution; limited institutional capacity; and general awareness of marine resource management. Activities will include:

- Increased enforcement at MPAs in Tubbataha and Anilao (Philippines);
- Support for coelacanth conservation project in Bunaken (Indonesia);
- Assist implementation of CBRM plan under development at Semporna Island (Malaysia);
- Public outreach and education in five municipalities of Palawan (Philippines); and
- Biological assessment and planning assistance in North Sulawesi and East Kalimantan (Indonesia) to assist with development of an Ecoregion Conservation Plan and strategy for selected sites.

To address the serious threats facing the SSME, WWF has developed the Sulu-Sulawesi Marine Ecoregion Conservation Program. This program is applying the Ecoregion-based Conservation Approach to conserve critical marine resources across the SSME. This program focuses on maintaining the natural biological character of the SSME by protecting key places and ecological processes including mangroves, coral reefs, and coastal zones; maintaining and/or improving water quality by addressing land-based sources of pollution; and managing the exploitation of living and non-living marine resources including rare and

commercial species. The program is holistic, striving to address both the proximate and root causes of ecosystem decline, biodiversity loss, and unsustainable resource use.

The SSME Program's goal is to maintain the natural biological character and ensure the long-term ecological and economic sustainability of the natural resources and biological diversity of the SSME. This activity will contribute to this goal through the following expected results:

- Enhancing conservation action at critical sites within the SSME;
- Improving awareness and understanding for the importance of Marine Conservation in Critical Sites in the SSME (focus on Palawan); and
- Increasing the understanding of conservation priorities and needs across North Sulawesi and East Kalimantan as part of the ecoregion planning process.

◆ **(13) Professional Capacity Building for Marine Protected Areas**

The US Department of the Interior (DOI) will utilize the experience and expertise of its various resource agencies to provide training in coral reef and marine protected area management to resource professionals in East Asia.. The initial training is planned to complement the WWF program in the Sulu-Sulawesi Ecoregion). This training activity will include the following:

- Biological and ecological aspects of coral reef management;
- Protected areas law enforcement; and
- Public outreach and education techniques, including computer and multimedia training.

The DOI plans to seek additional EAPEI funding in future years to design training to respond to particular country issues that are not addressed in existing training programs. Training could be conducted at field sites in East Asia and the Pacific or at coral reef sites in the US. Such training could be provided on-site in the region, with trainers drawn from DOI, NOAA, and from throughout the region.

The goal of a long-term Human Capacity Development/Training program would be to increase the capacity of coral reef protection in Southeast Asia as well as to promote public education about its benefits and conservation. The expected results are:

- Development of trained professionals whose ultimate goal is the conservation and management of the vulnerable coral reef system.

◆ **(14) Sea Turtle Conservation Workshop**

The ultimate goal of this activity, in conjunction with State/OES, is to achieve a multilateral agreement for the protection of endangered sea turtles in the Indian Ocean region. EAP-EI funds will be used to provide logistical, technical, and other support for a regional workshop as a precursor to establishing formal negotiations for the development of a regional conservation protocol.

The activity will support the following:

- Regional Meeting on Marine Turtle Conservation to be hosted by the Government of Australia, October 19-22, 1999;
- A conference in an EAP country, possibly Thailand or Malaysia to initiate negotiations toward a regional agreement for the conservation and protection of sea turtles in the Indian Ocean/Indo-Pacific Region; and,
- Coordination with EAP, the host country government and the State/OES environmental hub officer in Bangkok, who has indicated Embassy Bangkok's interest in the issue.

The Conference would build upon previous work conducted in the region. The World Conservation Union/IUCN has done a great deal of work in monitoring and assessing the status of sea turtle populations in the Indian Ocean. The ASEAN countries have also expressed their support for collaborative action to

protect and conserve sea turtles. As a result, many of the problems and needs related to sea turtle conservation in the region have been identified: the need to reduce the directed take of sea turtles and their eggs, the need to protect critical sea turtle habitat both in the ocean and on the nesting beaches, the need to restrict both national and international trade in sea turtle products such as shells and skins, and the need to reduce the incidental capture of sea turtles in commercial fishing operations.

The goal is to achieve a multilateral agreement for the conservation and protection of sea turtles in the Indian Ocean region. The expected results of this activity are:

- Obtained political commitment from the countries of the region to pursue negotiations toward a regional agreement for the conservation and protection of sea turtles;
- Established the critical elements and concepts to be included in any such agreement;
- Produced a draft negotiating text to serve as the basis for subsequent sessions of the conference;
- Established a timetable for further negotiations including a target date for the conclusion of such negotiations;
- Identified additional sources of funding for subsequent negotiation sessions to maintain the momentum established through the meetings funded under this project.

♦ (15) Sea Turtle Monitoring

Endangered hawksbill turtles will be monitored and tracked by NOAA and NMFS to better understand their migratory range and other natural history requirements. More specifically, EAP-EI funds will be used to:

- Purchase and deploy tracking equipment to determine the migratory pathways and behaviors of post-nesting hawksbill sea turtles;
- Build capacity among the region's sea turtle scientists to use remote sensing satellite telemetry techniques for tracking; and
- Build common understanding, application, and management commitment throughout the region for this shared resource.

Twelve satellite-linked transmitters would be deployed on hawksbill turtles that have completed their annual nesting activities. The study sites will be selected after consultation with researchers working at key sites within the region. Once attached, the transmitters will send signals, via NOAA satellites, that are translated into latitude and longitude, enabling the "tracking" of each turtle's movement on a regular basis. A regional workshop will be convened to instruct participants in the proper techniques to attach the transmitters and to provide them with the expertise and knowledge to understand the data that is transmitted daily from the deployed units. A similar project, carried out in the Caribbean during 1998, and funded by the US National Marine Fisheries Service, was highly successful. A "sister" project, in the EAP region would nicely complement the Caribbean study and provide valuable information that is highly relevant to issues with regard to the recent WTO decision and the DOS plans to convene a multilateral conference for the conservation of sea turtles in the Indian Ocean Region.

The expected results of the activity are threefold:

- To determine the migratory pathways and resident foraging habitats of post-nesting hawksbill turtles from representative nesting populations throughout the region;
- To provide the technical expertise and capability to in-country researchers to study sea turtles using remote sensing satellite telemetry techniques; and
- To provide a means by which the nations of EAP can better understand the shared nature and the important role that they each play in the conservation of regional sea turtle populations.

Implementation Mechanisms

The activities under this objective are being implemented through several USAID cooperative agreements. These are the following:

- (12) for the Sulu-Sulawesi Seas Large Marine Ecosystem (SSLME), USAID is providing funds through a Cooperative Agreement with the World Wildlife Fund - US;
- (13) for Professional Capacity Building for Marine Protected Areas,), USAID has amended its existing IAA with the DOI to establish this new special activity;
- (14) for the Sea Turtle Conservation Workshop and
- (15) for Sea Turtle Monitoring, USAID has amended its existing IAA with NOAA to provide funding to NMFS for these two activities.

C. GOAL C: IMPROVED CLIMATE CHANGE RESPONSE

Goal C of the EAPEI includes the (1) Improved Environmental Monitoring objective of the SEA-EI and adds two new objectives of (2) Improved Pollution Prevention, and (3) Policy and Technical Capacity Building.

Objective C.1. Improved Environmental Monitoring

Issues being Addressed:

The East Asia region needs improved regional satellite monitoring capacity for early detection of forest fires and transboundary movement of smoke and haze. The monitoring component of the ASEAN Regional Haze Action Plan calls for the development of this capacity and designates the ASEAN Specialized Meteorological Center in Singapore as the region's forest fire and environment monitoring center.

Radiative signatures such as heat (IR) and visible light (VIS) are easily detected by space borne sensors. Soot/ash (smoke) and associated moisture (haze) can be observed from space. Some molecular gases such as ozone also can be observed from atmosphere attenuated solar radiation. The information obtained has potential for vastly improving the predictions of atmosphere transport and dispersion models

Approved Activities and Expected Results

The EAPEI is providing additional funding for one activity under this objective.

◆ (16) ASEAN Smoke and Haze Monitoring (PARTS)

Under the SEA-EI, FY98 partial funding was given to NOAA/National Weather Service through an IAA from USAID for smoke and haze monitoring. The project proposal drew on the findings and recommendations of the National Weather Service (NWS) – World Meteorological Organization (WMO) prepared report, *Program to Address ASEAN Regional Transboundary Smoke* (PARTS) and related meetings. This activity was to:

- Develop ASEAN capabilities to model the long-range transport of smoke, haze, and other pollutants; and
- Implement a monitoring strategy for regional smoke and haze which supports transport models and complements current regional and national monitoring interests.

The National Weather Service and ASEAN were expected to find additional counterpart funding from other donors to complete the needed funding for the satellite component of PARTS. However, NWS was unable to secure additional funding so the EAPEI was asked to provide additional FY99 funding to permit implementation of PARTS to move forward. This new funding will provide technology transfer and

training to the Association of South East Asia Nations' (ASEAN) Specialized Meteorological Center (ASMC) Singapore for acquisition and processing of real-time environmental satellite data for the early detection of forest fires and smoke and haze related monitoring and tracking. The activity includes:

- Products from the three different environmental satellite platforms that will be merged into an active Geographic Information System (GIS) archive that encompasses South East Asia;
- Ancillary activities supported by this database, such as source term input to smoke transport models, vegetation stress indices, and fire potential indices.
- Distribution of fire products produced at the ASMC to the user community via Internet, or the Singapore Government supported regional Intranet.

The expected results of the PARTS activity are:

- The integration of fire products from the NOAA Polar-Orbiting Environmental Satellites (NOAA POES), the Defense Meteorological polar-orbiting Satellite (DMSP) and a planned Japanese geostationary orbiting Multi-functional Transport Satellite (MTSAT).
- Capability developed within Southeast Asia to utilize environmental satellites for real-time assessments of forest fires and associate smoke and haze.

Satellites play a key role in the early detection of fires and the characterization of the source location and smoke emission rates needed by the atmosphere transport models to forecast the movement of the smoke-plumes.

Implementation Mechanism

The activity under this objective is being implemented through the following:

- (16) for the ASEAN Smoke and Haze Monitoring activity, USAID has amended its existing IAA with NOAA to provide additional funds to the NWS for the PARTS activity.

Objective C.2. Improved Pollution Prevention

Issues being Addressed:

Vehicular air pollution is currently the greatest contributor to air pollution (and associated health impacts) in most urban areas in Asia. Mobile sources also contribute about 30 percent of greenhouse gas emissions worldwide. Energy efficient transportation and fuel technologies can substantially cut these emissions, thereby improving local environmental quality, cutting health care costs, and reducing greenhouse gas emissions. By addressing those environmental issues of concern to most countries in the region (i.e., urban air pollution), and by demonstrating the link between local air pollution and climate change, these activities can also build East Asia and Pacific country support for international action under the U.N. Framework Convention on Climate Change.

Approved Activities and Expected Results

The EAPEI is funding two activities under this objective.

◆ (17) Reduction of Urban Air Pollution

There are many ways to reduce emissions from vehicles and reduce kilometers traveled that can have an impact both on local air pollution and greenhouse gas emissions. EPA's plan is twofold:

- Develop a practical and useful "toolkit" or "resource guide" of information, tools, models, training materials and other products related to reducing transportation and vehicular air pollution in urban areas in Asia; and

- Provide technical assistance using this “toolkit” in a selected urban area in Asia, building upon the activities already underway in the region. This demonstration project could then be replicated in other communities across Asia.

Building on EPA’s domestic and international experience in phasing lead out of gasoline as well as its ongoing climate change work, the toolkit will draw together technical, planning, and financing approaches to assist communities in launching urban air pollution control programs, with an emphasis on mobile source emission reductions and transportation controls and planning. EPA and other partners will then demonstrate this approach in using this toolkit as a basis for a focused technical assistance activity in a selected urban area in Southeast Asia. The approach will include development of a baseline air pollution and greenhouse gas emission inventory and establishment of tools for measuring reduction.

By developing and demonstrating transportation and mobile source tools that can be used in urban areas, the project will:

- Create a set of adaptable program and design approaches to begin to solve a community’s transportation-related air pollution problems, and to provide a step-by-step guide to implementing a transport control program.
- Help to reduce local air pollution and greenhouse gas emissions in a selected urban area in Southeast Asia (i.e., Indonesia, Thailand, Malaysia, or the Philippines).

◆ (18) Pollution Monitoring and Mitigation

This activity was an add-on to EAPEI, in that it was required to deal with an emergency pollution incidence that was not anticipated at the time proposals for EAPEI were being prepared. Funds planned for a regional workshop on illegal logging in mainland Southeast Asia were reprogrammed for this activity.

EPA will dispatch environmental response teams to take soil, air, and water samples (as appropriate to the site conditions) to determine environmental and human health risks from potential contaminants. EPA experts will provide recommendations for proposed course of clean-up and recommend training for host country officials. EPA will work with host country institutions to answer questions and assure sufficient understanding of the technical findings. While EPA experts would not be expected to clean up sites, in some cases EPA experts would provide technical assistance during preparation for and actual clean-up of site. The specific tasks are:

- EPA will dispatch an environmental response team to provide technical assistance and analysis to assess the risk from the chemicals unearthed at the Bor Fai Airstrip in Hua Hin, Thailand.
- EPA will take soil samples to assess the potential risk from chemicals unearthed at Bor Fai, make recommendations for clean-up and provide technical assistance during clean-up of Bor Fai site.
- As needed on an emergency basis, EPA will dispatch an environmental response team to another location in Southeast Asia as agreed to between USAID Global Bureau and EPA’s Office of International Activities.

The result of this activity will be:

- Improved host country capabilities to determine environmental and human health risks from potential contaminants and to undertake appropriate clean-up.

Implementation Mechanism

The activity under this objective is being implemented through the following:

- (17) for the Reduction of Air Pollution Activity, USAID has amended its existing IAA with EPA to fund this activity, and
- (18) for Pollution Monitoring and Mitigation, USAID has amended its existing IAA with EPA to fund this activity.

Objective C.3. Policy and Technical Capacity Building

Issues being Addressed:

In discussions at various meetings, representatives from countries in the East Asia and Pacific Region have expressed their skepticism about the Kyoto Mechanisms and whether these would truly result in environmental benefits. It appears that these representatives may not fully comprehend the potential benefits from participation in the CDM, and in emissions trading, if they take on emissions targets. Although a number of workshops on the CDM have been held already, further discussions with decision makers (not just technical experts) and potential private sector investors may have a positive influence on making progress in the climate change negotiations. To date, some countries in the region have stymied efforts to move forward on the Mechanisms, raising a number of ideological arguments. Hopefully, exposure of these representatives to the practical, pragmatic aspects of CDM and to a more detailed explanation of US views will wear away their theoretical opposition. Short of taking on targets, future participation in the CDM will also put nations on the road to meaningful participation. The US will also benefit from hearing the invitee countries' concerns in a less charged atmosphere than in a multilateral negotiation.

Secondly, forests contribute about 20% of total greenhouse gas emissions globally, largely through deforestation in the tropics estimated at 1.4 to 1.5 Gigatons of carbon per year. Deforestation in Indonesia and other Southeast Asian countries contributed to the El Niño fires of last year that caused a globally significant spike in emissions in a few months. Forests are also sinks for carbon, pulling carbon out of the atmosphere into growing biomass in trees and carbon in soils.

Policy options and field practices for reducing deforestation and biomass burning, with carbon sequestration and storage benefits, have been identified. However, implementing such approaches is difficult, given the low economic returns on most forestlands, lack of infrastructure, and policy barriers. The potential value of carbon credits offers a new additional value for improved forest management in some specific circumstances. Forestry projects in the UNFCCC's Activities Implemented Jointly (AIJ) pilot phase have attracted tens of millions of dollars of new funding from private utilities and companies, but only ten of 123 AIJ projects are in Asia, and only one (unfunded and unimplemented) is in forestry.

Numerous difficult technical and policy issues surround the role of sinks in the UNFCCC process and national climate policies. Malaysia, the Philippines, and Indonesia have been formidable opponents during the negotiations. They oppose the evolution of commitments advanced by the USG and have reservations about including sinks in the Clean Development Mechanism, which the Administration views as a critical, least-cost flexibility mechanism.

Approved Activities and Expected Results

The EAPEI is funding three activities under this objective.

◆ (18) Workshop on Kyoto Mechanisms

The Buenos Aires Plan of Action outlines tasks to be completed by COP-6 in 2000 in order to make the Kyoto Protocol operational, including reaching agreement on the rules, guidelines, and modalities for emissions trading, joint implementation, and the Clean Development Mechanism (CDM). In addition, the US needs to continue efforts to secure more meaningful participation by key developing countries, which President Clinton has called a prerequisite for submission of the Kyoto Protocol for Senate advice and

consent to US ratification. The US wants to encourage our developing country partners in SE Asia to take more serious steps to address the threat of climate change.

This activity – a two and one half-day workshop – focuses attention on the issues and brings together regional officials and US and Japanese negotiators to discuss the outstanding aspects surrounding the Kyoto mechanisms. The workshop took place at the end of August in Bali, Indonesia. This time frame was planned before COP-5 (October 25 – November 5, 1999), so that negotiators can make more informed decisions at this session. Indonesia was the preferred site in order to follow up on a 1997 conference held on Activities Implemented Jointly, the pilot phase for joint implementation and a precursor to the CDM.

The workshop agenda focused on addressing outstanding issues related to the Kyoto Mechanisms. Some time was devoted to general presentations and information-sharing, but the majority of the session allowed participants to grapple with the thorny issues, such as measuring emission reductions, establishing project baselines, and considering institutional issues. Recent experiences in the international climate change negotiations have demonstrated that Asian nations will be the “toughest nuts to crack” in terms of winning support for (or at least tempering opposition to) the Kyoto mechanisms.

The expected results from this activity are:

- Improved understanding of the Kyoto Mechanisms (i.e., emissions trading, joint implementation, and the CDM by key East Asian interlocutors, and
- Raised profile of the Kyoto Mechanisms in the context of the SE Asian countries (i.e., Indonesia, Philippines, Malaysia, Thailand, et al.)

◆ (19) National Climate Action Plans Conference

Globally the US Country Studies Program (USCSP) is working with eighteen countries to help achieve meaningful participation in the FCCC through the development of National Climate Change Action Plans. The Global Environmental Facility (GEF) and other donors are providing substantial financial assistance for activities essential to the development of such plans and national communications. Concrete output from these various activities is still sparse, however, and a critical mass remains to be achieved. This activity will support an International Conference on National Action Plans. The exact structure and agenda of the conference are being developed in consultation with other sponsors. The conference is planned to include:

- Presentations by countries that have completed or are close to completing national action plan or substantive national communications;
- Identification and discussion of key steps, issues, and problems in the development of national action plans;
- Basic introductions to analytical tools for preparing plans, and evaluating and developing alternative policies, programs, and measures;
- Overviews of financial, technical, and other resources available to assist in the development of plans and their subsequent implementation; and,
- The preparation and publication of a comprehensive Conference Report.

The expected results of this activity are:

- Improved and expedited national communications from developing countries including concrete policies, programs, and measures for reducing net greenhouse gas emissions; and
- Published Conference Report, with translation into several languages.

◆ (20) Improved Forest Emissions Inventory (FORCLIMAT)

The FORCLIMAT activity is helping three Asian developing countries that are influential in the UNFCCC climate change negotiations to evaluate how their forests could provide national and global climate change

benefits, in addition to the existing stream of economic, timber product, and development benefits from forests. Forest “sinks” could help mitigate greenhouse gas emissions, potentially through the three countries’ participation in the Kyoto Protocol flexible mechanisms. FORCLIMAT will help the participating countries to better understand the climate benefits from, and policy options for, management of forest (and possibly agricultural) sinks in the climate convention context.

Indonesia, Malaysia, and Philippines have been selected as the focus countries. For these three countries, the activity will:

- Help develop in-country technical capacity of selected experts to assess GHG emissions and potential sequestration from forest and possibly agricultural land management policies and field practices, by providing training in analytic tools and GHG inventory methods;
- Assess the potential of national-level policies and projects to provide GHG mitigation benefits for each country, using biophysical and economic criteria, and apply lessons learned from other regions’ Joint Implementation forestry experiments to help the three countries begin to identify project activities capable of producing credible and verifiable carbon, socioeconomic, and other benefits; and
- Begin to introduce the concepts of forestry project evaluation and investment in the climate change context, by commencing public/private dialogs that may help facilitate additional future activities under this or other programs.

Such future work could review individual project proposals and evaluate their physical and financial risks, feasibility of implementation, barriers, and opportunities for private investment by US or other investors seeking carbon credits in the Kyoto Protocol context.

The results of this activity will be:

- Improved forest emission inventory and mitigation analysis for three countries;
- Assessed national-level and project-level forest greenhouse gas (GHG) mitigation options and project technical and policy issues for three countries in detail, including cost curves based on feasibility criteria for implementation and private investment; and
- Convened a dialog among the three Asian countries’ and the US’s public, private, and NGO sectors to discuss potential GHG mitigation investment priorities, issues, policy considerations, and the analytic results for the three countries.

Implementation Mechanisms

The activities under this objective is being implemented through the following:

- (19) for the Workshop on Kyoto Mechanisms and
- (20) for the National Climate Action Plan Conference, USAID has executed a task order with a contractor under its Energy IQC contract to provide technical and logistical support for these two activities;
- (21) for the Improved Forest Emissions Inventory, USAID has amended its existing IAA with EPA to fund this activity.

III. Budget Summary Table – FY 1999 Funding

Goal A. Forestry and Land Use Management

<i>Objectives:</i>	<i>Agency</i>	<i>Countries</i>	<i>Budget</i>
1. Fire Management and Prevention			
Continuing activities from FY98 in regional fire coordination and coal seam fire suppression.			
(1) Regional Fire Coordination	USDA/FS	Indonesia, ASEAN	293,750
(2) Coal Seam & Peat Fire Suppression	DOI/OSM	Indonesia, Malaysia	462,500
2. Forest Resources Management			
New activities in logging policies and regulations.			
(3) Reduced Impact Harvesting	USDA/FS	Regional	293,750
3. Forest Biodiversity Conservation			
New activities for debt-for-nature swaps and for wildlife conservation.			
(4) Forest Conservation Management	USAID - TNC	Indonesia	212,500
(5) Southeast Asia Wildlife Conservation	USAID - WWF	Laos	161,875
Sub-total			1,424,375

Goal B. Coastal Resources Management

<i>Objectives:</i>	<i>Agency</i>	<i>Countries</i>	<i>Budget</i>
1. Marine Resources Management			
New activities in capacity building, technical support and marine protected areas.			
(6) Coral Reef Bleaching Applied Research	STATE/OES	Regional	138,750
(7) South Pacific Coral Reef Conservation	SPREP	Pacific Islands	138,750
(8) Partnership Market Meeting (PMM)	NOAA/OIA	Philippines	92,500
(9) Destructive Fishing Reform: SE Asia	USAID - IMA/WRI	SEA Region	231,250
(10) Destructive Fishing Reform: Pacific Islands	USAID - TNC	Pacific Islands	185,000
(11) Marine Aquarium Council (MAC)	USAID - WWF	Indonesia/Philippines	92,500
2. Marine Biodiversity Conservation			
New activities in destructive fishing reform and in sea turtle conservation and management.			
(12) Sulu-Sulawesi Seas Large Marine Ecosystem	USAID - WWF	SEA Region	185,000
(13) Human Capacity Development/Training	DOI	Regional	46,250
(14) Sea Turtle Conservation Workshop	NOAA & STATE	SEA Region	140,000
(15) Sea Turtle Monitoring	NOAA/NMFS	SEA Region	64,375
Sub-total			1,314,375

Goal C. Climate Change Response

Objectives:

1. Environmental Monitoring

Continuing activities from FY98 in regional haze monitoring.

	<i>Agency</i>	<i>Countries</i>	<i>Budget</i>
(16) Smoke Pollution Monitoring (PARTS)	NOAA/NWS	ASEAN	231,250

2. Pollution Prevention

New activities in transportation sector emissions and industrial pollution prevention.

(17) Reduction of Urban Pollution	EPA	SEA Region	138,750
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(18) Pollution Monitoring & Mitigation	EPA	EAP Region	69,375
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3. Policy and Technical Capacity Building

New activities for Kyoto mechanisms and national climate action plans.

(19) Workshop on Kyoto Mechanisms	STATE/OES	Regional	69,375
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(20) National Action Plans Conference	STATE/OES	Regional	92,500
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(21) Improving Forest Emission Inventory & Analysis	EPA	SEA Region	185,000
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<i>Sub-total</i>			<i>786,250</i>
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Program Management

1. Strategic Framework

	<i>Agency</i>	<i>Countries</i>	<i>Budget</i>
Contract support for strategic framework	USAID	Regional	50,000

2. Management & Monitoring

Program support staff	USAID	Regional	250,000
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<i>Sub-total</i>			<i>300,000</i>
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FY 99 TOTAL

3,825,000

IV. US GOVERNMENT ROLES AND RESPONSIBILITIES FOR EAPEI

A. Overall Program Management

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ADI/G/ENV	Being Hired through RSSA with USDA			
USAID/ANE	John Wilson	202-712-4633	202-216-3171	jwilson@usaid.gov

B. Improved Forestry and Land Use Management

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C. Improved Coastal Resources Management

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